

# HIGH PERFORMANCE LANDSCAPE GUIDELINES

HIGH  
PERFORMANCE  
LANDSCAPE  
GUIDELINES  
21ST  
CENTURY  
PARKS  
FOR NYC

# 21ST CENTURY PARKS FOR NYC

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LANDSCAPE GUIDELINES  
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# A PROJECT OF THE DESIGN TRUST FOR PUBLIC SPACE AND THE

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# NEW YORK CITY DEPARTMENT OF PARKS & RECREATION



City of New York  
Parks & Recreation

These principles have guided the development of this manual. They represent the values of the New York City Department of Parks & Recreation. They are compatible with the Sustainable Sites Initiative, the work of American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center at the University of Texas at Austin, and the United States Botanic Garden.

## DESIGN

### ENGAGE ALL USERS

- Create delight, in any of its forms — seasonal beauty, discovery, aesthetic beauty, and even whimsy.
- Determine and address the cultural and age preferences of neighborhood users.
- Strive to integrate uses so that they benefit each other, rather than causing conflict.
- Pay particular attention to adjacent sources of users.
- Exceed requirements for accessibility to ensure delight in forms that can be perceived by people of differing abilities.

### ENGAGE NATURE

- Create parks that reveal a range of landscape types.
- Offer a diversity of ways to engage with natural environments, beyond strolling and viewing.
- Do not harm the ecology of the place.

### RESPOND TO SITE CONTEXT

- Understand the historic design intent of the site and respect it.
- Understand the natural and historic importance of the site and interpret it.
- Understand existing microclimates.
- Create new microclimates to accommodate site uses, extend their season, and mediate climate change.

## ECOLOGY

### SUPPORT ECOLOGICAL FUNCTION

- Maximize the benefits of ecosystem services by preserving existing environmental features.
- Restore and regenerate lost or damaged ecosystem services.

### INCREASE DIVERSITY AND INTERCONNECTIVITY

- Understand and preserve the complex relationships between soil, water, vegetation and fauna in each ecosystem.
- Strengthen the city's ecological functioning by increasing the diversity of park vegetation and habitat.
- Create linkages between individual parks and natural areas that enhance larger-scale ecological functioning.

## ECONOMY

### RESILIENCY

- Work to maximize the economic efficiency and productivity of all design, construction and maintenance.
- Include maintenance considerations in all designs to assure that projects will thrive without extensive repair and modifications.

### PERFORMANCE

- Consider the long-term impact of material selection, including source and production methods, whether a material is recycled or recyclable, how the material can be maintained, its carbon footprint and embedded energy, and how long it will last.
- Work with maintenance staff to learn from past problems and increase serviceability.

## SOCIETY

### COLLABORATION AND PARTICIPATION

- Encourage direct and open communication and collaboration throughout the Parks Department and with other City agencies.
- Engage the public in a consultative process so that their knowledge of the site and recreational preferences are incorporated into the design.
- Assist in the development of community stewardship.

### PUBLIC HEALTH

- Design parks that encourage active recreation and improve the health and well-being of city residents.

### EDUCATION

- Design to inform the public about the critical ecological benefits of parks.
- Teach future generations about the importance of parks for the city's well-being.
- Effect a transformation of social priorities about ecological and economic objectives.

### LONG-TERM THINKING

- Provide future generations with a sustainable environment supported by regenerative systems.
- Avoid consumption of resources that contribute to habitat destruction and global warming.

# PART V: CASE STUDIES

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*Part V contains case studies documenting successes, challenges, and lessons learned in implementing best practices at similar sites. Case studies are organized by site type, and include examples at different scales. Emphasis was placed on New York City examples to make it easy for Parks Department designers to visit and assess case study sites.*



where faulty workmanship or materials can be installed and quickly covered up before proper inspection and testing.

### DEVELOPING STRONG PARTNERSHIPS IS ESSENTIAL TO REALIZING THE DESIGN

Landscape architects are often in a precarious position as their work is built towards the end of a project when construction financing and patience have begun to wear thin. Having the strong backing of city agencies and engaged civic organizations helps ensure that a project will be realized and maintained as designed. This will help to dissuade owners from value engineering site components out of a project.

#### FOR MORE INFORMATION

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# STREETSCAPES

## QUEENS PLAZA

This project intends to transform the tangle of urban infrastructure cutting through Long Island City from a harsh, disorienting industrial maze into a lush, navigable landscape. The design team reconceived the gateway landscape to Long Island City for the NYC Department of City Planning and NYC Economic Development Corporation's Queens Plaza Bicycle and Pedestrian Landscape Improvement Project. The design reconnects the surrounding neighborhoods and restores the connection between the city and the river, a one mile stretch from JFK Park to the river's edge below the Queensboro Bridge.

**LOCATION:** Long Island City, New York

**DESIGNERS:** Wallace Roberts & Todd, Margie Ruddick, Marpillero Pollack Architects, Michael Singer and Leni Schwendinger Light Projects, Langan Engineers and Environmental Services

**CLIENT:** New York City Economic Development Corporation

**COMPLETED:** ongoing; anticipated 2011

### PROJECT SIGNIFICANCE

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The project addresses an urban condition common in New York and around the world: the intersection of multiple infrastructure systems that create a forbidding and sometimes hazardous environment for people. At Queens Plaza, the infrastructure elements are the Queensboro Bridge, elevated subway lines (for the N, W, and 7 trains), an elevated subway station, and heavy traffic and parking below. The designers sought to integrate these systems with art and ecology, transforming what was residual or leftover space into public space that people will want to occupy and maneuver through, and a place that performs ecological functions. At the same time, the designers' interventions use lighting, custom paving patterns, and contemporary materials to reveal the essence of the existing structure and to heighten visitors' perceptions of the space.

### DESIGN FEATURES

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- The structure of the elevated train track, currently appearing as a tangle of steel, will be transformed by Marpillero Pollack Architects into a lantern-like series of sculptural spaces suspended above the flow of people and traffic.
- A system of permeable pavers, designed by artist Michael Singer, will manage and filter stormwater through plantings, and serve as hard walking surfaces.
- A broad swath of ironwood trees will arc along the elevated train track at JFK Park, enfolding the refuge-like park landscape.
- A river of understory trees will meander within the park, then along the medians to the river.
- All site stormwater will filter through subsurface wetlands and median plantings, challenging the conventional notion of an urban park and streetscape as hardscape.



This rendering depicts the planned open space, plantings, water management and highlighted infrastructure that will transform Queens Plaza.

## LESSONS LEARNED

Interagency coordination will need to evolve to achieve truly sustainable design

Thanks to the involvement of the Mayor's office, a good measure of coordination was achieved between agencies (DCP, EDC, DOT, MTA, and DEP). Nevertheless, there are still some areas where the design had to be scaled back, such as the stormwater management system, because the agencies involved were not prepared to maintain certain structures.

### ADMINISTRATIVE CHALLENGES TO INNOVATION IN STORMWATER MANAGEMENT MUST BE OVERCOME

The project attempted to filter street runoff in more sustainable and innovative ways (using hydrodynamic separators, detention tanks, permeable pavement, rain gardens, etc.), which each agency was supportive of throughout the design process. However, when the question of maintenance arose, no agency was willing to take on maintaining the stormwater filtration system.

### AGENCIES MAY RESIST MAINTENANCE OF UNCONVENTIONAL TREE SPECIES OR LIGHTING FIXTURES

Parks would only accept and maintain certain tree species in the project. As far as lighting is concerned, only DOT standard fixtures were allowed and no new types of lighting fixtures could be used.

## FOR MORE INFORMATION

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